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PATENT ABSTRACTS OF JAPAN

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C07K 7/00 C07K 16/40 C12N 9/64

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(54) NEW ACIDOCYTE SERINE PROTEASE

(57) Abstract:

PROBLEM TO BE SOLVED:

To obtain the subject new enzyme useful for screening a serine protease inhibitor, diagnosing allergic diseases, infectious diseases, neoplastic diseases, collagen diseases, etc., comprising an acidocyte serine protease shown by a specific amino acid sequence.

SOLUTION: This new polypeptide is an acidocyte serine protease composed of an amino acid sequence shown by the formula in a substantially pure form, its homolog, its fragment or the homolog of the fragment and is useful for a method for screening a serine protease inhibitor and for diagnosing diseases such as allergic diseases, infectious diseases, neoplastic diseases, granulomatous diseases, collagen diseases, angiitis, etc. This serine protease is obtained by extracting the whole RNA from the blood of a patient of eosinophilic leucocytosis, cloning the RNA by RT-PCR to give a cDNA encoding a serine protease, linking the serine protease to a vector, inserting the vector into *Escherichia coli* and culturing the prepared transformant.

Net	Gly	Ala	Arg	Gly	Ala	Leu	Leu	Leu	Ala	Leu	Leu	Leu	Ala	Arg	Ala
-26	-25					-20						-15			
Gly	Leu	Arg	Lys	Pro	Glu	Ser	Gln	Glu	Ala	Ala	Pro	Leu	Ser	Gly	Pro
-10					-5						1			5	
Cys	Gly	Arg	Arg	Val	Ile	Thr	Ser	Arg	Ile	Val	Gly	Gly	Glu	Asp	Ala
				10					15					20	
Asn	Ile	Ser	His	His	Phe	Glu	Trp	Ile	Gln	Lys	Leu	Met	Ala	Gln	Ser
				250				255					260		
Gly	Met	Ser	Gln	Pro	Asp	Pro	Ser	Trp	Pro	Leu	Leu	Phe	Phe	Pro	Leu
				265				270					275		
Leu	Trp	Ala	Leu	Pro	Leu	Leu	Gly	Pro	Val						
				280				285							

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Identifier: AAN00001 DNA Sequence 1082 BP
 Release Info: Derwent Geneseq Database Release No. 200124; Date released 26-NOV-01
 Database XReference: WPI; 1999-183825/16.
 Accession Number: AAX15337
 Patent Title: New eosinophils serine protease - useful for prevention and treatment of allergic, infectious, tumour, granuloma
 Patented by: (ONOH) ONO PHARM CO LTD.
 Inventor:
 Description: Nucleic acid encoding a human eosinophil serine protease.
 Patent Number: JP11032768-A
 Patent Publication Date: 09-FEB-1999
 Modification Date: 04-MAY-1999 (first entry)
 Local Filing: 16-JUL-1997; 97JP-0191319
 Priority: 16-JUL-1997
 Abstract: The present sequence encodes a human eosinophil serine protease. The protease is useful in drug compositions: tumour diseases, granulomatous diseases, collagen diseases and vascular inflammation.
 KeyWords: Human;eosinophil;serine protease;allergic disease;infectious disease;tumour;granulomatous disease;collagen c
 Organism: Homo sapiens.
 Sequence Composition: Sequence 1082 BP; 216 A; 318 C; 308 G; 240 T; 0 other;
 Sequence: >AAX15337 JP11032768-A PA (ONOH) PR 16-JUL-1997 PF 16-JUL-1997 Nucleic acid encoding a human
 GAGGAGGCCATGGGCGCGCGCGGGGCGCTGCTGCTGGCGCTGCTGCTGCGCTCGGGCTGGA
 CTCAGGAAGCCGGAGTCGCAGGAGGCGGCGCCGTTATCAGGACCATGCGGCCGACGGGTC
 ATCACGTGCGGCATCGTGGGTGGAGAGGACGCCGAACCTCGGGCGTTGGCCGTGGCAGGGG
 AGCCTGCGCCTGTGGGATTCCACGTATGCGGAGTGAGCCTGCTCAGCCACCGCTGGGCA
 CTCACGGCGGCGCACTGCTTTGAAACCTATAGTGACCTTAGTGATCCCTCCGGGTGGATG
 GTCCAGTTTGGCCAGCTGACTTCCATGCCATCCTTCTGGAGCCTGCAGGCCTACTACACC
 CGTACTTCGTATCGAATATCTATCTGAGCCCTCGCTACCTGGGGAATTCACCCTATGAC
 ATTGCCTTGGTGAAGCTGTCTGCACCTGTACCTACACTAAACACATCCAGCCCATCTGC
 CTCCAGGCCTCCACATTTGAGTTTGAGAACCGGACAGACTGCTGGGTGACTGGCTGGGGG
 TACATCAAAGAGGATGAGGCACTGCCATCTCCCCACACCCTCCAGGAAGTTCAGGTCGCC
 ATCATAAACAACCTCTATGTGCAACCACCTCTTCTCAAGTACAGTTTCCGCAAGGACATC
 TTTGGAGACATGGTTTGTGCTGGCAATGCCCAAGGCGGGAAGGATGCCTGCTTCGGTGAC
 TCAGGTGGACCCTTGGCCTGTAACAAGAATGGACTGTGGTATCAGATTGGAGTCGTGAGC
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 CCACTACTCTTTTTCCCTCTTCTCTGGGCTCTCCCACTCCTGGGGCCGGTCTGAGCCTAC
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Identifier: AAN00001 DNA Sequence 942 BP
Release Info: Derwent Geneseq Database Release No. 200124; Date released 26-NOV-01
Database XReference: WPI; 1999-183825/16.;P-PSDB; AAW97116.
Accession Number: AAX15336
Patent Title: New eosinophils serine protease - useful for prevention and treatment of allergic, infectious, tumour, granuloma
Patented by: (ONOH) ONO PHARM CO LTD.
Inventor:
Description: Nucleic acid encoding a human eosinophil serine protease.
Patent Number: JP11032768-A
Patent Publication Date: 09-FEB-1999
Modification Date: 04-MAY-1999 (first entry)
Local Filing: 16-JUL-1997; 97JP-0191319
Priority: 16-JUL-1997
Abstract: The present sequence encodes a human eosinophil serine protease. The protease is useful in drug compositions for the treatment of tumour diseases, granulomatous diseases, collagen diseases and vascular inflammation.
KeyWords: Human;eosinophil;serine protease;allergic disease;infectious disease;tumour;granulomatous disease;collagen c
Organism Homo sapiens.
Sequence Composition: Sequence 942 BP; 176 A; 283 C; 276 G; 207 T; 0 other;
Sequence: >AAX15336 JP11032768-A PA (ONOH) PR 16-JUL-1997 PF 16-JUL-1997 Nucleic acid encoding a human
ATGGGCGCGCGCGGGGCGCTGCTGCTGGCGCTGCTGCTGGCTCGGGCTGGACTCAGGAAG
CCGGAGTCGCAGGAGGCGGCGCCGTTATCAGGACCATGCGGCCGACGGGTCATCACGTCCG
CGCATCGTGGGTGGAGAGGACGCCGAACCTCGGGCGTTGGCCGTGGCAGGGGAGCCTGCGC
CTGTGGGATTCCCACGTATGCGGAGTGAGCCTGCTCAGCCACCGCTGGGCACTCACGGCG
GCGCACTGCTTTGAAACCTATAGTGACCTTAGTGATCCCTCCGGGTGGATGGTCCAGTTT
GGCCAGCTGACTTCCATGCCATCCTTCTGGAGCCTGCAGGCCTACTACACCCGTTACTTC
GTATCGAATATCTATCTGAGCCCTCGCTACCTGGGGAATTCACCCTATGACATTGCCTTG
GTGAAGCTGTCTGCACCTGTACCTACACTAAACACATCCAGCCCATCTGCCTCCAGGCC
TCCACATTTGAGTTTGAGAACCGGACAGACTGCTGGGTGACTGGCTGGGGGTACATCAAA
GAGGATGAGGCACTGCCATCTCCCCACACCCTCCAGGAAGTTCAGGTCGCCATCATAAAC
AACTCTATGTGCAACCACCTCTTCTCAAGTACAGTTTCCGCAAGGACATCTTTGGAGAC
ATGGTTTGTGCTGGCAATGCCCAAGGCGGGAAGGATGCCTGCTTCGGTGACTCAGGTGGA
CCCTTGGCCTGTAACAAGAATGGACTGTGGTATCAGATTGGAGTCGTGAGCTGGGGAGTG
GGCTGTGGTTCGGCCAATCGGCCCGGTGTCTACACCAATATCAGCCACCACTTTGAGTGG
ATCCAGAAGCTGATGGCCCAGAGTGGCATGTCCAGCCAGACCCCTCCTGGCCACTACTC TTTT

Identifier: AAW97116 Protein Sequence 314 AA
Release Info: Derwent Geneseq Database Release No. 200124; Date released 26-NOV-01
Database
XReference: WPI; 1999-183825/16.;N-PSDB; AAX15336.
Accession
Number: AAW97116
Patent Title: New eosinophils serine protease - useful for prevention and treatment of allergic, infectious, tumour, granulom
Patented by: (ONOEY) ONO PHARM CO LTD.
Inventor:
Description: A human eosinophil serine protease.
Patent
Number: JP11032768-A
Patent
Publication 09-FEB-1999
Date:
Modification 04-MAY-1999 (first entry)
Date:
Local Filing: 16-JUL-1997; 97JP-0191319
Priority: 16-JUL-1997
Abstract: The present sequence represents a human eosinophil serine protease. The protease is useful in drug compositio
tumour diseases, granulomatous diseases, collagen diseases and vascular inflammation.
KeyWords: Human;eosinophil;serine protease;allergic disease;infectious disease;tumour;granulomatous disease;collagen c
Organism Homo sapiens.
Sequence
Composition: Sequence 314 AA; 23 A; 15 R; 11 N; 12 D; 0 B; 10 C; 14 Q; 11 E; 0 Z; 30 G; 8 H; 13 I; 36 L; 9 K; 7 M; 13 F;
Sequence: >AAW97116 JP11032768-A PA (ONOEY) PR 16-JUL-1997 PF 16-JUL-1997 A human eosinophil serine prot
MGARGALLLALLLARAGLRKPESQEAAPLSGPCGRRVITSRIVGGEDAELGRWPWQGSLR
LWDSHVCGVSLLSHRWALTAAHCFETYSDLSDPSGWMVQFGQLTSMPSFWSLQAYYTRYF
VSNIYLSPRYLGNSPYDIALVKLSAPVTYTKHIQPICLQASTFEFENRTDCWVTGWGYIK
EDEALPSPHTLQEVQVAIINNSMCNHLFLKYSFRKDIFGDMVCAGNAQGGKDACFGDSSG
PLACNKNGLWYQIGVVSWGVCGRPNRPGVYTNISHHFEWIQKLMAQSGMSQPDPSWPLL FFPLLW